

REMARKS

Claims 1-50, 59, 60 and 67-78 were examined in the outstanding office action mailed on 05/09/2006 (hereafter "Outstanding Office Action"). All the claims were rejected. By virtue of this response, claims 1, 10, 15, 21, 25, 30, 37, 42 and 47 are sought to be amended and claims 79-85 are sought to be added. The amendments and additions are believed not to introduce new subject matter, and their entry is respectfully requested. The amendments are made without prejudice or disclaimer. Claims 1-50, 59, 60 and 67-85 are thus respectfully presented for reconsideration further in view of the below remarks.

Claim Rejections Under 35 U.S.C. § 112

10 In paragraphs numbered 8-11 of pages 2 and 3 of the Outstanding Office Action, claims 1-14, 37-46, 59, 60, 67-69, and 73-75 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner had objected to the use of the term "wherein said receiving, said generating and said sending are performed in an aggregation device implemented as a single device" or the like in independent claims 1,10, 37, and 42.

15 By virtue of this response, each of independent claims 1, 10, 37 and 42 is sought to be amended to delete the term objected to. In addition, the term "on said communication network" is sought to be deleted in claims 1 and 37. Withdrawal of the rejection under 35 U.S.C. § 112 with respect to each of the independent claims 1, 10, 37 and 42 is respectfully requested.

20 However, it is respectfully noted that newly added dependent claim 79, which depends from currently amended claim 1, recites, "... wherein said receiving, said generating and said sending are performed *in* an aggregation device implemented as a single device." (**Emphasis Added**). The amendments are believed to address the pending rejections under 35 U.S.C. § 112.

The Examiner is respectfully invited to suggest any other alternative language which avoids improper interpretations. Applicants and the undersigned representative wish to also thank the Examiner for the detailed Examination and pointing the potential improper interpretations with the claims examined in the previous office action.

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Claim Rejections Under 35 U.S.C. § 103

Claims 1-4, 8-10, 14, 21-23, 25, 29, 30, 35-40, 42, 46-50, 59, 60, 69, 72, 75, and 78 were rejected under 35 U.S.C. 103(a) as being unpatentable over Ketcham (U.S. Patent Number 6,721,334) in view of Pereira (U.S. Patent Number 5,781,726). Applicants respectfully traverse at least for reasons noted below.

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For example, currently amended claim 1 recites in relevant parts:

A method of processing a plurality of keep-alive messages generated by a corresponding plurality of end systems, each of said plurality of keep-alive messages being designed to request the status of a corresponding point to point (PPP) session implemented on a communication network, said method comprising:

15 *receiving* in an aggregation device said plurality of *keep-alive messages*;
generating in said aggregation device *an aggregated request packet which includes data indicating that the status of said PPP sessions is requested*; and
sending said aggregated request packet to a peer aggregation device.
(Emphasis Added)

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Thus multiple keep-alive messages are received in an aggregation device, an aggregated request packet (including data indicating that the status of the PPP sessions is requested) is generated, and the aggregated request packet is sent to a peer aggregate device. The elements receiving, generating and sending are performed by a single device as recited.

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The combination of Ketcham and Pereira does not render claim 1 obvious based on several established principles and practices established in interpreting 35 U.S.C. § 103. For example, MPEP recites in relevant parts:

2143.02. VI. < PRIOR ART MUST BE CONSIDERED IN ITS ENTIRETY, INCLUDING DISCLOSURES THAT TEACH AWAY FROM THE CLAIMS

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A prior art reference must be considered in its *entirety*, i.e., as a whole (Emphasis in original), including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir.

1983), cert. denied, 469 U.S. 851 (1984) (MPEP Section 2143.02. VI, ***Emphasis Added***)

In other words, it is believed that the applicable practice requires the Patent Office not to ignore the portions of the reference that would lead away from the claimed invention.

5 It is Applicants' position that the Examiner has committed a legal error in ignoring various portions of Pereira. In particular, Pereira discloses in the Abstract:

10 Traffic involved in maintaining a set of connection oriented sessions between end stations in a network is managed to optimize and reduce the polling traffic needed to maintain the connection oriented sessions across a common link between edge devices. *At a first edge device, a member of a set of connection oriented sessions is selected as a polling session. Request polling traffic of that polling session is forwarded from a first edge device to the second edge device. All other polling traffic from other members of the set of connection oriented sessions is blocked at the first edge device.* The set of connection oriented sessions is maintained in response to polling traffic of the selected polling session. ...
15 (Abstract of Pereira, ***Emphasis Added***)

Thus, the approach of Pereira forwards the polling traffic of only one member connection, and blocks the polling traffic of the remaining connections.

20 Such a blocking of Pereira would be inconsistent with the claimed feature of "...an aggregated request packet which includes data indicating that the status of said PPP sessions is requested" recited in claim 1 since Pereira would not forward any data related to the blocked connections to the second edge device.

25 Thus, Pereira considered in its entirety (as required by the MPEP portion noted above) would teach away from claim 1. Accordingly, claim 1 is allowable over the art of record. Independent claims 21 and 37 are allowable over the art of record at least for similar reasons. Claims 2-9 and 67-69 are allowable at least as depending from an allowable base claim 1.

Previously presented claim 68 (rejected over the combination of Pereira, Ketcham and Rosenberg) is independently allowable since Pereira would preclude inclusion of the

identifiers of the PPP sessions in the aggregated request packet, for reasons similar to those noted above.

5 New claim 79 is allowable independently over the art of record for the additional reason in reciting that "... wherein said receiving, said generating and said sending are performed by an aggregation device ***implemented as a single device***" (claim 1, ***Emphasis Added***).

10 Thus, combining the respective embodiments of Ketham and Pereira to operate as a single device (as recited in new claim 79) is believed to present challenges again because Pereira would block data related to all connections except for one member connection, and Pereira would have nothing to aggregate!

Accordingly, new claim 79 is independently allowable over the art of record.

Currently amended claim 10 is also allowable over the combination of Pereira and Ketham relied upon by the Examiner. Claim 10 recites in relevant parts:

15 A method of processing an aggregated request packet in an aggregation device, wherein said aggregated request packet is received from a peer aggregation device and indicates that the status of a plurality of point-to-point sessions are requested, said method comprising:

20 ***examining said aggregated request packet to determine that the status of said plurality of point-to-point sessions is requested;***

determining the status of each of said plurality of point-to-point sessions;
generating an aggregated reply packet indicating the status of said plurality of point-to-point sessions; and

25 sending said aggregated reply packet to said peer aggregation device,
wherein said examining, said determining, said generating and said sending are performed by said aggregation device ***implemented as a single device***.
(Currently Amended Claim 10, ***Emphasis Added***)

Thus, claim 10 recites the feature of examining the aggregated request packet to determine that the status of plurality of sessions is requested.

Neither Ketham nor Pereira discloses or reasonably suggests such a feature. As the Examiner relies on Ketham the Examining element of claim 10, Applicants point to the relevant portion of Ketham which suggests the absence of the feature:

The router 312 receives the aggregate packet 400. The router 312 supports aggregate packets and detects that the aggregate packet 400 is an aggregate packet with an LLC destination other than the router 312 itself. In this case, ***the router 312 can either hold the packet for further aggregation or immediately send it on***. In one embodiment, aggregate packets are not further aggregated. In one embodiment, the aggregate packet 400 is held according to a timer for further aggregation if the router 312 has setup packet aggregation for packets destined for the router 314.

(Col. 8, lines 5-14 of Ketham, ***Emphasis Added***)

Thus, router 312 of Ketham mere holds the aggregate packets for further aggregation or immediately sends the aggregate packets immediately. Accordingly, there is no disclosure or suggestion in Ketham to examine aggregated request packets to determine that the status of said plurality of point-to-point sessions is requested.

Pereira does not fill that void since the embodiments of Pereira do not appear to have access to the claimed aggregate packets.

Accordingly, currently amended independent claim 10 is allowable over the art of record. Independent claims 25 and 42 are also allowable over the art of record for similar reasons.

Currently amended independent claim 15 is allowable over the art of record at least in reciting, "... a message aggregator coupled to said input interface, said message aggregator examining said plurality of messages and ***generating data according to a format indicating that the status of said PPP sessions is requested...***" (***Emphasis Added***).

Currently amended independent claim 30 is allowable over the art of record at least in reciting, "... a de-encapsulator ***examining said aggregated request packet to determine that the status of said plurality of point-to-point sessions is requested ...***" (***Emphasis Added***).

Thus, all the presented independent claims are believed to be allowable over the art of record. The dependent claims are allowable at least as depending from corresponding allowable base claims.

Accordingly, all objections and rejections are believed to be overcome. The Examiner is invited to telephone the undersigned representative at 707.356.4172 if it is believed that an interview might be useful for any reason.

Respectfully submitted,

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